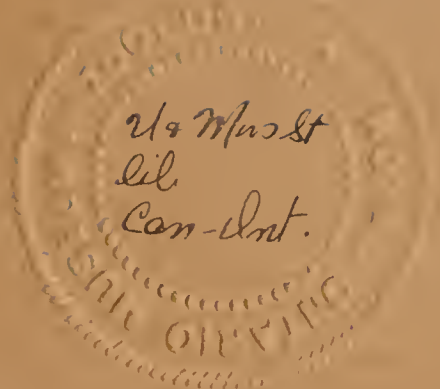


P.S.
Ro
605P
1949-
1950
AR

LIBRARY
ROYAL ONTARIO MUSEUM
LIFE SCIENCES DIVISION



A. N N U A L R E P O R T

LIBRARY
ROYAL ONTARIO MUSEUM
UNIVERSITY OF TORONTO
100 QUEEN'S PARK
TORONTO 5, ONTARIO, CANADA

O F T H E

R O Y A L O N T A R I O M U S E U M O F P A L A E O N T O L O G Y

1 9 4 9 - 5 0

REPORT OF THE DIRECTOR OF THE ROYAL ONTARIO MUSEUM
OF PALAEOLOGY

L.S. Russell

Field work during the past year has been on a scale not achieved for many years, and as a result, large additions have been made to our collections. The contributions to the teaching of palaeontology in the University of Toronto have been considerable, not only through the instruction given by the Directors, but also by the use of the collections and facilities by both undergraduate and graduate students. Important research projects have been completed or are in progress, but research is not yet on a scale appropriate to our position as one of the world's larger palaeontological institutes. In addition to the two Directors, whose time must be given in part to University teaching, this Museum could provide a field for at least three additional scientific workers, two on invertebrate palaeontology, and one on vertebrate.

The high cost of supplies and labour, and the difficulty in obtaining certain materials, have greatly restricted the addition of exhibits to the galleries, but this situation is slowly improving. The skeleton of the Pliocene rhinoceros, purchased in 1940, has at last been housed in a suitable case, and is now installed in the place reserved for it in the gallery, where it makes a very impressive exhibit. Many new specimens have been added to the invertebrate series.

The largest expedition sent out during the summer of 1949 was that to the Tertiary fossil beds of Saskatchewan. This was made possible by a renewed grant from the Research Fund of the University of Toronto. The party,

consisting of Messrs. L. Sternberg (in charge), R.R. Hornell, and A. Weare, left Toronto late in June, as mentioned in last year's statement. Transportation to and in the field was by means of a new truck, purchased with a loan from the Leonard Bequest. This truck was sold in Saskatchewan at the close of the field season, and the members of the field party returned to Toronto by train. A pleasant camp was established at the ranch of Mr. R.T. Stewart. The Hunter quarry was again worked, and a number of important specimens were, in consequence, added to our collections. Visits were also made to other Tertiary mammal-bearing deposits in southern Saskatchewan, and important specimens were obtained.


Approval was given this year to send a collecting expedition to the mammal-bearing Eocene of Wyoming. The services and field equipment of Mr. George F. Sternberg, of Hays, Kansas, were secured, and Mr. G.E. Lindblad, of our staff, joined him as collaborator. Camp was established, under rather difficult conditions, near Basin, Wyoming, and a large collection was made from the badlands of the Willwood formation. In addition to hundreds of teeth and jaw fragments, the collection includes two skeletons and several skulls. These fossils date from an early and very important epoch in the Age of Mammals, when the ancestors of modern groups were first making their appearance.

Field work in 1950 began in June. Dr. Fritz, accompanied by Miss Elvira Hammell and Mr. J. Monteith, went to Coral Rapids in the James Bay region to collect fossils from the important Palaeozoic localities in the vicinity. This expedition should not only add an important series of fossils to our collections, but should provide valuable information on the local geology. From these studies it is hoped to derive important conclusions on the fauna and

flora of the area, in comparison with those of similar age elsewhere in Canada. Such work has an important bearing on the consideration of northern Ontario as a possible area for oil and gas exploration. This project is being financed by a grant from the University of Toronto Research Fund.

Other expeditions sent out in June include one by G.F. Sternberg and G.E. Lindblad to the Middle Eocene mammal-bearing deposits of southeastern Wyoming, and one by L. Sternberg, R.R. Hornell, and A. Weare to the dinosaur-bearing deposits along Milk River, in southern Alberta. The work of these expeditions will continue into the new fiscal year, and will be reported on fully in the statement for 1950-51.

This Museum continues to render various services to outside institutions and individuals. Study and identification of specimens were carried out for Dr. B.F. Howell, of Princeton University, for the Geological Survey of Canada and the National Museum of Canada, for the Atlantic Biological Station, for the Department of Geology, University of Chicago, for Professor P.S. Warren, University of Alberta, for Mr. F.G. Bard, Provincial Museum of Saskatchewan, for Professor F.H. Edmunds, University of Saskatchewan, and for Dr. V. Rondeau, Rouleau, Saskatchewan. Specimens or illustrative material have been donated to Professor de Laubenfels, Hawaii, to Dr. A. McAlpine, Notre Dame University, to Professor G.E. Hutchinson, Yale University, and to Department of Geology, McMaster University. Specimens have been loaned for study or temporary exhibition to Professor Alexander Petrunkevitch, Yale University, to Dr. M. LeCompte, Brussels, Belgium, to the Royal Ontario Museum of Zoology, and to the Division of Education, Royal Ontario Museum. A skull of a fossil rhinoceros was sold to Augustana College, Rock Island, Illinois. Special instruction was given to a study group of the Junior Field-



Digitized by the Internet Archive
in 2019 with funding from
Royal Ontario Museum

<https://archive.org/details/annualreportofro4950romp>

Naturalists' Club.

Special lectures have been restricted to an address by Dr. Fritz to the Hamilton Nature Club, entitled "Through the Ages to Primitive Man". In the field of research, Dr. Fritz has completed a study of fusulinid material from northern British Columbia, and also the investigation of material submitted by Princeton University and the University of Chicago. A paper on a new order of corals, the Multisolenida, was completed, and has since been published. Much time was given to research in Ordovician stratigraphy, for a course of 12 lectures to graduate students. Supervision was given to the research work of five graduate students.

Dr. Russell completed his report on the geology of the Cypress Hills, Saskatchewan, and a more theoretical study on Cretaceous-Tertiary correlation; these have both been published. More recently he made a study of a giant fossil fish from British Columbia, for the National Museum of Canada. The Tertiary mammals obtained from Saskatchewan and Wyoming have been given much attention, but a large amount of work on these remains to be done. It has been possible to prepare a preliminary report on the significance of the Saskatchewan finds.

The specimen catalogue requires constant attention, and Mr. J. Monteith has spent any time available from his secretarial duties recording newly acquired fossils, and adding them to the collections. Mr. Bruce Liberty has been engaged part-time in cataloguing vertebrate fossils. In the preparation of specimens, Mr. D. Monteith has made much progress in the sectioning, grinding, and polishing of specimens for exhibition. Messrs. L. Sternberg, R.R. Hornell, and A. Weare have spent most of their time in the preparation of the

fossil mammals from Saskatchewan. Mr. G.E. Lindblad has been working on the fossil mammals from Wyoming. Mr. Sternberg has prepared casts of various specimens and models.

The librarian, Miss E. Hammell, has added about 150 books and pamphlets to the library during the year.

Donations

Silurian fossils from the Arctic. By Mr. W. Gunn, Department of Zoology, University of Toronto.

Fusulinids from northern British Columbia. By Dr. D.R. Derry.

Sediments containing microfossils, Eocene of New Jersey. By Professor Helgi Johnson, Rutgers University.

Specimens of Megalomus canadensis. By Mr. R. Waines.

Collection of as yet unidentified pelecypods from the Dundas formation at Thistletown. By Mrs. W.H. Bush.

Large collection of fossils and casts of fossils. By Department of Zoology, University of Toronto, through Professor J.R. Dymond.

Mounted skin of gar-pike. By Department of Geology, McMaster University.

Valuable collection of old palaeontological publications. By Mr. W.M. Tovell.

Miscellaneous palaeontological papers. By Dr. Jack Satterly.

Exchanges

Cambrian trilobites (zone-markers) for Guelph pelecypods Megalomus canadensis. Ward's Natural Science Establishment, Rochester, New York.

Collections

Ordovician and Silurian invertebrates, from Lake Temiskaming district.

By Dr. Fritz and Mr. J. Monteith.

Carboniferous and Triassic conglomerates, from Bay of Fundy region.

By Dr. Fritz.

Recent invertebrates, from Bay of Fundy. By Dr. Fritz.

Pleistocene mollusks, from Don interglacial beds. By Dr. Russell.

Large collection of Eocene, Oligocene, and Miocene mammals from southern Saskatchewan. By Mr. L. Sternberg and party.

Large collection of Lower Eocene mammals from near Basin, Wyoming.

By Messrs. G.F. Sternberg and G.E. Lindblad.

Typical specimens of Tertiary mammal-bearing rocks from Saskatchewan, Montana, Wyoming and Nebraska. By Dr. Russell.

